

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended in light of the following discussion is respectfully requested.

Claims 53, 54, 56-58, 60-63, and 66-100 are now pending in this application. Claims 1-52 were previously canceled, and claims 55, 59, 64, and 65 are herein canceled. Claims 53, 54, 60, 66, 67, 73, 76, 80, 84, 85, 87, 94, 98, and 99 are herein amended. New claim 100 is added. Support for the amendments and the new claim is found at least in the claims as filed, and in the specification at paragraph 001, and at paragraph 0044. No new matter has been added.

In the outstanding Office Action, claim 55 was objected to as being of improper dependent form. Claim 99 was rejected under 35 U.S.C. § 112, second paragraph, and under 35 U.S.C. § 101. Claims 53-63, 75-78, and 91-95 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,368,569 to Haddon in view of U.S. Patent No. 6,426,134 to Lavin and U.S. Patent No. 6,159,742 to Lieber. Claims 64-73, 79, 81, 82, 84-90, and 96-98 were rejected under 35 U.S.C. § 103(a) as obvious over Haddon, in view of Lavin and Lieber, and further in view of Georgakilas, J. Am. Chem. Soc., Vol. 124, No. 5, 2002. Claims 74, 80, and 83 were indicated as allowable, for which Applicants thank the Examiner.

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Claim 53 is herein amended. As amended, claim 53 is directed to a method of solubilizing carbon nanotubes. The method comprises providing carbon nanotubes and urea in any order. The urea is a precursor of isocyanic acid and/or cyanate ion, and the isocyanic acid and/or cyanate ion is capable of undergoing polymerization. The method further comprises mixing the nanotubes with the urea, and initiating a polymerization reaction of the isocyanic acid and/or cyanate ion, to yield modified carbon nanotubes. The carbon nanotubes have functional groups on their surface and/or ends, and the polymerization reaction occurs at those functional groups. During or after the polymerization reaction, at least one aldehyde is added to the mixture. The method further comprises heating the mixture, or alternatively, acidifying the mixture, or both heating and acidifying the mixture. The at least one aldehyde is added during the heating and/or acidification step. Claims 54, 56-58, 60-63, and 66-75 depend from claim 53 and include all of its limitations.

The amendment of claim 53 clarifies that the claimed method includes heating the mixture, or alternatively, acidifying the mixture, or both heating and acidifying the mixture, and adding the at least one aldehyde during the heating and/or acidification step. The Office has indicated in the outstanding Office Action that the prior art does not disclose adding an aldehyde during the heating process, and that it does not provide any motivation for adding the aldehyde after the heating step is initiated. Nor does the prior art teach or suggest adding the aldehyde after the polymerization is initiated by acidification. Because the prior art does not teach or suggest this method, Applicants respectfully submit that the cited references cannot render claim 53, or the claims depending therefrom, obvious. Accordingly, Applicants request the withdrawal of the rejections, and the allowance of claims 53, 54, 56-58, 60-63, and 66-75.

Claim 76 is herein amended. As amended, claim 76 is directed to a method of solubilizing carbon nanotubes. The method comprises providing carbon nanotubes and urea

in any order, mixing together the nanotubes and the urea, and heating the mixture of nanotubes and urea for approximately 1-60 minutes. Claims 77-100 depend from claim 76 and include all of its limitations.

Claim 76 is amended to include the limitations of now-canceled claim 80, which the Office has indicated as allowable. Accordingly, claim 76, and all the claims depending therefrom, should be allowed, and Applicants request the withdrawal of the rejections of claims 76-100.

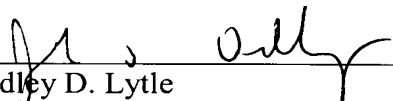
Claim 55 was objected to as being of improper dependent form. Applicants herein cancel claim 55, rendering this rejection moot.

Claim 99 was rejected under 35 U.S.C. §112, second paragraph, and under 35 U.S.C. §101. In response, Applicants have amended claim 99. With such amendment, it is believed that these rejections are obviated. Applicants respectfully request the allowance of claim 99.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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